

**RECEIVED  
CENTRAL FAX CENTER**

SEP 10 2008

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 200311582-1**IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor(s): Alan R. Arthur et al.

Confirmation No.: 7536

Application No.: 10/686,896

Examiner: CHOU, Tony Sheng Hsiang

Filing Date: October 15, 2003

Group Art Unit: 1795

Title: Multi-Cell Fuel Cell Layer and System

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450**TRANSMITTAL OF REPLY BRIEF**Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on July 10, 2008.

This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 08-2025.

☐ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450  
Date of Deposit:**OR**☒ I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number (571) 273-8300.  
Date of facsimile: September 10, 2008

Typed Name: Rebecca R. Schow

Signature: 

Respectfully submitted,

Alan R. Arthur et al.

By 

Steven L. Nichols

Attorney/Agent for Applicant(s)

Reg No. : 40,326

Date : September 10, 2008

Telephone : 801-572-8066

**RECEIVED  
CENTRAL FAX CENTER**

SEP 10 2008

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400**DUPLICATE**

PATENT APPLICATION

ATTORNEY DOCKET NO. 200311582-1**IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor(s): Alan R. Arthur et al.

Confirmation No.: 7536

Application No.: 10/686,896

Examiner: CHOU, Tony Sheng Hsiang

Filing Date: October 15, 2003

Group Art Unit: 1795

Title: Multi-Cell Fuel Cell Layer and System

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450**TRANSMITTAL OF REPLY BRIEF**Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on July 10, 2008.

This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 08-2025.

- ☐ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Commissioner for Patents, Alexandria, VA 22313-1450

Date of Deposit:

**OR**

- ☒ I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number (571) 273-8300.

Date of facsimile: September 10, 2008

Typed Name: Rebecca R. Schow

Signature: 

Respectfully submitted,

Alan R. Arthur et al.

By 

Steven L. Nichols

Attorney/Agent for Applicant(s)

Reg No.: 40,328

Date: September 10, 2008

Telephone: 801-572-8066

**RECEIVED**  
**CENTRAL FAX CENTER**

**SEP 10 2008**

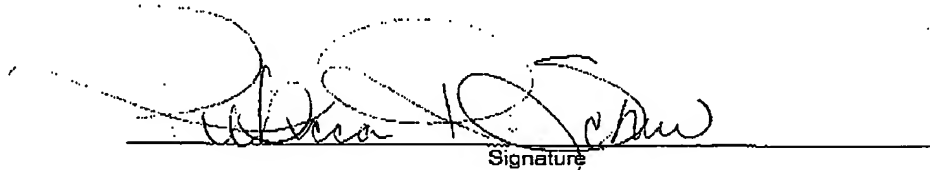
Application No.: 10/686,896

Attorney Docket No.: 200311582-1

### **Certificate of Transmission**

I hereby certify that this correspondence is being facsimile transmitted to the Commissioner for Patents via the USPTO central facsimile number, (571) 273-8300.

on September 10, 2008  
Date



Signature

**Rebecca R. Schow**

Typed or printed name of person signing Certificate

**Transmitted, herewith, are the following documents:**

1. Transmittal of Reply Brief with Duplicate Copy (2 pages)
2. Certificate of Transmission (1 page)
3. Reply Brief (15 pages)

200311582-1

10/686,896

**RECEIVED  
CENTRAL FAX CENTER**

**SEP 10 2008**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Patent Application of

Alan R. Arthur et al.

Application No. 10/686,896

Filed: October 15, 2003

For: Multi-Cell Fuel Cell Layer  
and System

Group Art Unit: 1795

Examiner: CHUO, Tony Sheng Hsiang

Confirmation No.: 7536

**REPLY BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is a Reply Brief under Rule 41.41 (37 C.F.R.) in response to the Examiner's Answer of July 10, 2008 (the "Examiner's Answer" or the "Answer"). In Section 10, the Answer contains a response to some of the arguments made in Appellant's brief. Appellant now responds to the Examiner's Answer as follows.

200311582-1

10/686,896

(1) Claims 1-5, 7, 11-14, 61 and 62 are clearly patentable over Bostaph:

Claims 1 and 61:

Claim 1 recites:

A multi-cell fuel cell layer, comprising:  
a substrate;  
an array of fuel cells each having an anode, a cathode, and an electrolyte disposed on said substrate;  
conductors electrically coupled to said fuel cell array;  
*a fuel flow channel defined in a first, anode side of said substrate; and*  
*a cathode air flow channel defined in a second and opposite, cathode side of said substrate.*

(Emphasis added).

Independent claim 61 recites

An electrochemical system, comprising:  
means for supporting an array of fuel cells comprising a substrate;  
*means defined in a first side of said substrate for conveying cathode air across fuel cells of said array; and*  
*means defined in a second, opposite side of said substrate for conveying fuel across said fuel cells of said array.*  
(Emphasis added).

In the Examiner's Answer, the Examiner argues that "there are no limitations in the claims that require a single, two sided substrate." (Answer, p. 12). The Answer goes on to note that "claims are given the broadest reasonable interpretation." (Answer, p. 12).

Appellant understands that "claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004)." (MPEP § 2111.01). According to the MPEP, "[t]his means that the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification." (*Id.*).

Appellant respectfully submits that the Examiner's Answer has indulged in hindsight, has clearly gone beyond the broadest *reasonable* interpretation of the claims, and has

200311582-1

10/686,896

improperly failed to give the claim terms their plain meaning in an over-zealous attempt to reject Appellant's claims.

Appellant notes that both independent claims 1 and 61 recite "a substrate." (Emphasis added). This substrate is recited in the singular, and all subsequent references and recitations are to that "said" single substrate. In particular, claims 1 and 61 recite a first side of the "said" substrate and a second "opposite" side of "said" substrate. One of skill in the art would clearly understand that such language refers to *a* single, two-sided substrate with the two, first and second, sides being *opposite* each other. This is only the reasonable interpretation and plain meaning of Appellant's claims. With this understanding, claims 1 and 61 then further recite a fuel flow channel (or means) and an air flow channel (or means) that are defined in the opposite sides, first and second sides, anode and cathode sides, of the substrate.

In contrast, Bostaph does not teach or suggest the claimed fuel cell layer or system in which a fuel flow channel is defined in one side of a substrate and a cathode air flow channel is defined in a second, opposite side of the same substrate. According to the Answer, Bostaph teaches "a fuel flow channel '30' defined in first anode side of the substrate; and a cathode air flow channel '29' defined in a second opposite cathode side of the substrate." (Answer, p. 3). This is clearly incorrect.

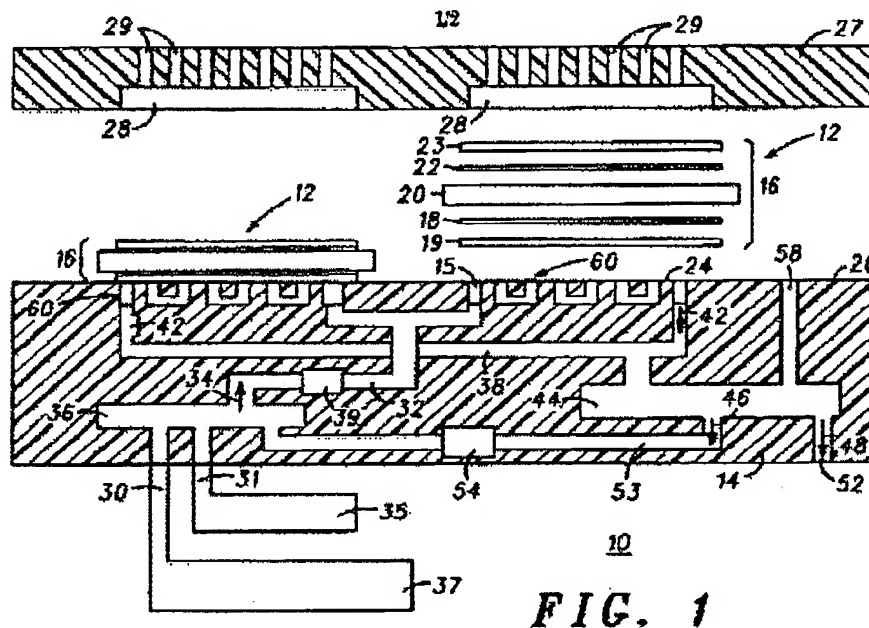
Rather, Bostaph teaches two separate substrates, one containing the "fuel flow channel" 30 and a second, separate substrate with the "cathode air flow channel" 29 extending entirely therethrough. These teachings cannot *reasonably* be construed as equivalent to the single substrate recited in claims 1 and 61 which fuel flow and air flow channels defined *in opposite sides* of that substrate. The fact that Bostaph teaches air flow

200311582-1

10/686,896

channel 29 extending entirely through a first substrate and a fuel flow channel 30 in an entirely different substrate preclude such an unreasonable interpretation.

Fig. 1 of Bostaph is reproduced below.



**FIG. 1**

As can be plainly seen in Fig. 1 of Bostaph, the fuel flow channel identified in the Office Action, element "30," extends into a lower substrate "26." (Answer, p. 3). The cathode air flow channel identified in the Office Action, element "29," comprises a number of channels that extend all the way through a second, upper substrate "27." (Answer, p. 3). Thus, elements 30 and 29 are located in different and separate substrates.

More specifically, Bostaph teaches "a plurality of fuel cell assemblies 12." (Bostaph, paragraph 0018). The fuel cell assemblies are sandwiched between two substrates. (Bostaph, Fig. 1). One of the substrates, "[b]ase portion 14[,] has formed within a plurality of micro-fluidic channels as illustrated" including a fluid supply channel 32. (Bostaph, paragraph

200311582-1

10/686,896

0019). "Fluid supply channel 32 supplies a fuel-bearing fluid 34 to fuel cell 12." (*Id.*). Then, in the other substrate (27), "a plurality of air flow-throughs 29 [are] positioned to overlay membrane electrode assembly 16." (Bostaph, paragraph 0024).

Consequently, Bostaph clearly does not teach or suggest the claimed subject matter. Specifically, using claim 1 as an example, Bostaph does not teach or suggest "a substrate" with "a fuel flow channel defined in a first, anode side of *said* substrate; and a cathode air flow channel defined in a second and opposite, cathode side of *said* substrate." There is no substrate taught or suggested by Bostaph that includes both a fuel flow channel defined in one side and a cathode air flow channel in the other. There is no substrate taught by Bostaph that has both an anode side and a cathode side.

The Answer further argues that "base portion '14' and the cap portion '27' taught by Bostaph et al, are necessarily sealed to the membrane electrode assemblies '16' in order to prevent the cathode air and fuel from mixing. Since the base portion and cap portion are sealed together during the assembly of the fuel cell device, the final component is construed as a single, integral substrate." (Answer, p. 13). Given this explanation, it is even clearer that Bostaph teaches away from, and cannot be applied to, claims 1 and 61.

The Examiner's Answer has entirely overlooked that the two recited sides of the claimed substrate are both "opposite" sides of the substrate and, respectively, "an anode side" and "cathode side." When the base and cap are sealed together to form "a single, integral substrate" as argued above (Answer, p. 13), the fuel cell structure, with anode and cathode, are contained inside the "single, integral substrate." Thus, Bostaph clearly cannot teach or suggest the claimed substrate with anode and cathode sides that are "opposite" sides of the substrate.



200311582-1

10/686,896

As explained in Appellant's specification, this novel subject matter of claims 1 and 61 allows for more efficient stacking of fuel cells. Accordingly, cell layers can be "alternatingly stacked such that a fuel cell layer shares a fuel flow channel with a first adjacent fuel cell layer on one side and a cathode air flow channel with a second adjacent fuel cell layer on the other side." (Appellant's specification, paragraph 0028). These advantages were unknown and unavailable in the cited prior art, particularly Bostaph. As demonstrated above, Bostaph requires two separate substrates for a single fuel cell layer whereas Appellant's invention reduces the number of substrates required in a stack.

In sum, Bostaph clearly fails to teach or suggest the subject matter of claims 1 and 61, specifically, a fuel flow channel or means defined in a first side of substrate with a cathode air flow channel or means defined in the second, opposite side of that substrate. A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Therefore, for at least the reasons discussed here, the rejection of all the pending claims should not be sustained.

Claim 4:

Claim 4 further recites "a cathode air inlet and an excess cathode air outlet defined in said substrate." According to the final Office Action, Bostaph "discloses a cathode air inlet '29' and an excess cathode air outlet '28' that are defined in the substrate." (Action, p. 3). However, element "28" of Bostaph is not an excess cathode air outlet, but rather is a "current collector." (Bostaph, paragraph 0027).

200311582-1

10/686,896

According to the Answer, "[a]lthough reference number 28 is labeled as a current collector, the examiner is relying on the space/cavity that is shown by reference number 28 in Figure 1. This space referred to by reference number 28 is construed as a cathode air outlet because the cathode air enters from the cathode air inlet '29' of the cap portion '27' and exits to the cathode air outlet '28' of the cap portion '27.'" (Answer, p. 13).

One of skill in the art will appreciate that the Examiner is here merely describing the two ends of the cathode air *inlet* taught by Bostaph. Inlets (29) provide air into the "space" (28) noted by the Examiner where the air is then available to the cathode of the fuel cell stack. This portion of Bostaph has nothing to do with a cathode air outlet as recited in claim 4.

Moreover, claim 4 recites an "*excess* air cathode outlet defined in said substrate." This is nothing in Bostaph or this attempted explanation from the Answer that address the issue of an *excess* air cathode outlet as recited in claim 4.

Consequently, Bostaph clearly fails to teach or suggest all the subject matter of claim 4. Additionally, claims 5 and 6 depend from claim 4 and recite additional subject matter that is not taught or suggested by Bostaph. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Therefore, the rejection of claims 4-6 should not be sustained.

Claim 12:

Claim 12 recites "wherein said electrolyte seals non-active portions of said substrate." In this regard, the Office Action argues that Bostaph "discloses an electrolyte '20' that seals non-active portions of the substrate (See Figure 1)." (Action, p. 4). However, it is unclear from Fig. 1 if the electrolyte (20) even makes contact with either substrate, let alone seal non-

200311582-1

10/686,896

active portions of the substrate. Consequently, the Action fails to make out a *prima facie* case of unpatentability with regard to claim 12, and the rejection of claim 12 should not be sustained.

In response, the Answer argues as follows. "Although Figure 1 does not show the electrolyte "20" being in contact with the substrate "27" & "14", it is well known in the art that the electrolyte layer is necessarily sealed to the top portion and bottom portion of the substrate in order to prevent the cathode air from mixing with the fuel. Since the electrolyte layer has an area greater than the area of the anode "18" and the cathode "22", one skilled in the art would know that the electrolyte layer seals the non-active portions of the substrate which would be the area of the substrate outside the area of the anode and cathode in order to maximize the active area of the anode and cathode." (Answer, pp. 13-14).

This argument amounts merely to an argument that the claimed subject matter is inherent in Bostaph, even though not expressly taught. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.' 'Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (citations omitted). "[T]he examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990) (emphasis in original); see also, MPEP § 2112 (quoting *Levy*).

In the present instance, the Examiner argues that the electrolyte layer is sealed to the substrate to prevent mixing of air and fuel in the system and, therefore, seals non-active

200311582-1

10/686,896

portions of the substrate. However, the Examiner provides no evidence to support this conclusion that the electrolyte is “necessarily” sealed to the substrate. To the contrary, one of skill in the art would readily appreciate that the fuel and air flows can be kept separate without sealing the electrolyte to a supporting substrate. For example, in Appellant’s claimed subject matter, the fuel and air flows are on opposite sides of the substrate, which, as noted above, is a fact that the Examiner insists on overlooking.

In any event, the Examiner has failed to carry the required burden to argue that Bostaph inherently anticipates claim 12. Therefore, the rejection of claim 12 cannot be sustained.

Claim 13:

Claim 13 recites “flow modification features associated with either or both of said fuel flow channel and said cathode air flow channel, said flow modification features being configured to distribute a flow of fuel or air emerging from an inlet across a width of said fuel flow channel or said air flow channel, respectively.” In this regard, the Office Action cites to Bostaph’s Fig. 2. However, according to Bostaph, Fig. 2 illustrates “a plurality of ceramic layers, generally referenced 62, 64, and 66, having formed therein a plurality of three-dimensional microfluidic fuel deliver channels.” (Bostaph, paragraph 0029). This, however, is not a teaching or suggestion of the claimed flow modification features “being configured to distribute a flow of fuel or air emerging *from an inlet across a width of said fuel flow channel or said air flow channel*, respectively.” (Emphasis added).

200311582-1

10/686,896

In response, the Examiner's Answer argues that, "[s]ince the layer '66', shown in Figure 2, performs the same function to distribute a flow of fuel emerging from an inlet across a width of the fuel flow channel '72', it reads on claim 13." (Answer, p. 14). However, there is no teaching or suggestion in Bostaph that layer 66 performs a function of distributing a flow of fuel across the width of the fuel flow channel. To the contrary, as shown in Fig. 3 of Bostaph, the fuel flows in a single direction along each of the fuel flow channels (72) without any feature, as recited in claim 13, that modifies this flow and distributes it across the flow path. Again, the Answer fails to demonstrate that the subject matter of claim 13 is actually taught or suggested by the cited prior art. For at least this additional reason, the rejection of claims 13 and 14 should not be sustained.

(2) Claim 6 is patentable over Bostaph and Wilkinson:

This rejection should not be sustained for at least the same reasons given above with respect to the patentability of claim 1.

(3) Claims 9, 10 and 65 are patentable over Bostaph and Takayangi:

Claims 9, 10, 30-32 and 65 are patentable over Bostaph and Takayangi for at least the reasons given herein with respect to their corresponding independent claims.

(4) Claim 15 is patentable over Bostaph:

Claim 15 is patentable over Bostaph for at least the same reasons given herein with respect to the patentability of the corresponding independent claim.

200311582-1

10/686,896

(5) Claims 16, 32-34, 36, 63 and 64 are patentable over Bostaph and Haluzak:

Claim 16:

Independent claim 16 recites:

A fuel cell system, comprising:  
a plurality of fuel cell layers each including an array of fuel cells each having an anode, a cathode, an electrolyte and conductors disposed on a substrate, *a fuel flow channel defined in an anode side of said substrate, and a cathode air flow channel defined in an opposite cathode side of said substrate,*  
wherein said fuel cell layers are alternatingly stacked.  
(Emphasis added).

In contrast, as demonstrated above, Bostaph does not appear to teach or suggest a fuel cell system in which a plurality of fuel cell layers are disposed on a substrate with “a fuel flow channel defined in an anode side of said substrate, and a cathode air flow channel defined in an opposite cathode side of said substrate.” Moreover, as Appellant has previously explained on the record, Haluzak also fails to teach or suggest this subject matter.

The Answer provides nothing new in this regard, but merely restates that all reliance is on Bostaph as teaching the claimed “fuel flow channel defined in an anode side of said substrate, and a cathode air flow channel defined in an opposite cathode side of said substrate.” (Answer, p. 14).

Additionally, as noted above, Appellant has disclosed that given “a fuel flow channel defined in an anode side of said substrate, and a cathode air flow channel defined in an opposite cathode side of said substrate,” the fuel cell layers can be alternatingly stacked to reduce the number of substrates used. Specifically, cell layers can be “alternatingly stacked such that a fuel cell layer shares a fuel flow channel with a first adjacent fuel cell layer on one side and a cathode air flow channel with a second adjacent fuel cell layer on the other side.” (Appellant’s specification, paragraph 0028). Such advantage is entirely lost and cannot be achieved with the double substrate structure taught by Bostaph. Like the final Office Action,

200311582-1

10/686,896

the Answer does not address this difference between the subject matter of claim 16 and the cited prior art.

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966) to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Bostaph and Haluzak, did not include the claimed fuel cell system in which a plurality of fuel cell layers are disposed on a substrate with "a fuel flow channel defined in an anode side of said substrate, and a cathode air flow channel defined in an opposite cathode side of said substrate." Rather, this subject matter appears to be wholly outside the scope of the cited prior art.

This difference between the cited prior art and the claimed subject matter is significant because the cited prior art did not provide the benefits available in the claimed subject matter, such as a reduced number of substrates in a stack and improved sealing and thermal cycle stress reduction. (See Applicant's specification, paragraph 0030). For at least these reasons, the combination of Bostaph and Haluzak will not support a rejection of claim 16 under 35 U.S.C. § 103(a) and *Graham*. Therefore, the rejection of claim 16 should not be sustained.

(6) Claims 17-24 are patentable over Haluzak and Takayanki:

Claims 17-24 are patentable over Haluzak and Takayanki for at least the same reasons given herein with respect to the patentability of the corresponding independent claim.

200311582-1

10/686,896

(7) Claims 22-24 are patentable over Haluzak, Takayanki and Wilkinson:

Claims 17-21 are patentable over Haluzak, Takayanki and Wilkinson for at least the same reasons given herein with respect to the patentability of the corresponding independent claim.

(8) Claim 29 is patentable over Haluzak and Nguyen:

This rejection is respectfully traversed for at least the same reasons given above with respect to the patentability of the corresponding independent claim.

Additionally, claim 29 recites "wherein said fuel flow channels or air flow channels comprise ports that can be opened or closed to selectively activate or deactivate each individual layer of said plurality of layers." The Office has previously conceded that Haluzak does not teach this subject matter. (Action of 8/30/06, p. 7). Consequently, the Action cites to Nguyen in this regard.

Nguyen teaches a method "for operating such a fuel cell system includes supplying fuel to the fuel inlets from a common source of fuel and supplying an oxidant to the oxidant inlets from a common source of oxidant. The outlets of a given cell are selectively opened to purge fuel product and oxidant product from the given cell while the outlets of other cells are kept closed." (Nguyen, abstract). Thus, Nguyen does not teach or suggest the claimed ports that selectively activate or deactivate individual fuel cell layers. Rather, Nguyen merely teaches that, *while all cells are operating*, they can be individually purged of byproducts.

According to the Answer, "[a]lthough Nguyen does not expressly teach the function of selectively activating or deactivating each individual layer of the plurality of layers, the valves that are taught by Nguyen are at least capable of selectively activating or deactivating each individual layer. By selectively opening a valve of an individual layer, the port in the flow



200311582-1

10/686,896

channel is essentially opened to activate the individual layer. By selectively closing a valve of an individual layer, the port in the flow channel is essentially closed to deactivate the individual layer." (Answer, p. 15). This, however, is unsupported by the teachings of Nguyen.

To the contrary, Nguyen teaches that, while all the cells are operating, they are individually purged of byproducts by operation of the outlet valves. Nguyen never teaches or suggests that operation of the purge valves can deactivate layers of the fuel cell as alleged by the Answer.

For at least these reasons, the cited prior art will not support a rejection of claim 29 under 35 U.S.C. § 103(a) and *Graham*. Therefore, the rejection of claim 29 should be reconsidered and withdrawn.

(9) Claim 35 is patentable over Haluzak and Mook:

Claim 35 is patentable over Haluzak and Mook for at least the same reasons given herein with respect to the patentability of the corresponding independent claim.

(10) Claims 37 and 38 are patentable over Haluzak, Takayanki, Wilkinson and Nguyen:

Claims 37 and 38 are patentable over Haluzak, Takayanki, Wilkinson and Nguyen for at least the same reasons given herein with respect to the patentability of the corresponding independent claim.

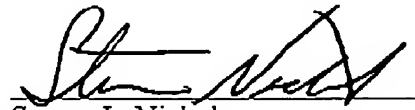
200311582-1

10/686,896

In view of the foregoing, it is submitted that the final rejection of the pending claims is improper and should not be sustained. Therefore, a reversal of the final rejection of December 31, 2007 is respectfully requested.

Respectfully submitted,

DATE: September 10, 2008



Steven L. Nichols  
Registration No. 40,326

Steven L. Nichols, Esq.  
Managing Partner, Utah Office  
Rader Fishman & Grauer PLLC  
River Park Corporate Center One  
10653 S. River Front Parkway, Suite 150  
South Jordan, Utah 84095  
(801) 572-8066  
(801) 572-7666 (fax)

**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted to the Patent and Trademark Office facsimile number 571-273-8300 on September 10, 2008. Number of Pages: 18



Rebecca R. Schow